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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,683	04/11/2006	Borje Maleus	4208-28	9217
23117 7590 04/25/2008 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203				
EXAMINER				
MURALIDAR, RICHARD V				
ART UNIT		PAPER NUMBER		
2838				
MAIL DATE		DELIVERY MODE		
04/25/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/566,683

**Applicant(s)**

MALEUS, BORJE

**Examiner**

RICHARD V. MURALIDAR

**Art Unit**

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 February 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-12 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 01 February 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-85/86)  
Paper No(s)/Mail Date 02/01/2006  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Drawings***

The drawings are objected to because they are not labeled. Please label each box in all figures with the appropriate name; for example, Fig. 1, item 12 with GEN or generator. Hand-labeled drawings are not acceptable.

Fig. 4 is further objected to because items 40 and 42 are reversed. According to the spec at par. 0032, item 40 is the battery management system, and item 42 is a generator. However, one can plainly see that item 40 is the generator and item 42 is the battery management system.

The flowchart in Fig. 6 is objected to because par. 0036 indicates that this step is optional; however, this is not reflected in the drawing. Please include the word optional in step 62, and add a line from step 60 to step 64 that visually depicts that step 62 can be skipped. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Tamai et al. [U.S. 6,275,004].

With respect to claim 1, Tamai discloses a method for managing a battery system [Fig. 1; col. 1 lines 9-12] including a number of serially coupled batteries [Fig. 1, 14, 16, 18; col. 3 lines 10-13] characterized by the steps of detecting the battery voltage [Fig. 1, V2, V3 Sense; col. 3 lines 34-38; col. 4 lines 30-35; col. 5 lines 29-30] over the batteries of the battery system; and utilizing a voltage imbalance [col. 3 lines 30-34; col. 5 lines 4-29] between different batteries of the system during operation of the battery system.

With respect to claim 2, Tamai discloses the step of controlling the voltage distribution of the batteries to create a voltage imbalance between different batteries of the battery system [col. 5 lines 7-29; lines 51-53; 59-67; col. 6 lines 16-21; lines 29-35; see also claims 6-8. The voltage imbalance is created by the application of load on battery 14].

With respect to claim 3, Tamai discloses the step of controlling the voltage distribution comprises the step of controlling the voltage distribution of the batteries to

enhance a detected voltage imbalance between the different batteries of the system [col. 5 lines 7-29; the voltage imbalance is enhanced whenever load conditions are high].

With respect to claim 4, Tamai discloses the step of alternating between batteries of the battery system having different voltages during predetermined intervals [col. 6 lines 16-21; lines 47-50; alternating occurs between V2 and V3 of the second and third batteries, respectively].

With respect to claim 5, Tamai discloses that the step of utilizing the voltage imbalance comprises the step of utilizing the voltage imbalance between different batteries of the system during the charging and/or discharging of the batteries [col. 6 lines 16-21; lines 47-50].

With respect to claims 6 and 9, Tamai discloses the step of sensing a battery parameter of the battery system; and utilizing the sensed battery parameter for the control of the voltage distribution [col. 4 lines 27-35].

With respect to claims 7 and 10, Tamai discloses that the step of sensing a battery parameter comprises the step of sensing the temperature at the battery system [col. 7 lines 55-61].

With respect to claim 8, Tamai discloses a device for managing a battery system [Fig. 1; col. 1 lines 9-12] including a number of serially coupled batteries [Fig. 1, 14, 16, 18; col. 3 lines 10-13] characterized by voltage detecting means [Fig. 1, V2, V3 Sense] connected to said battery system and arranged to detect the battery voltage over the batteries of the battery system [col. 3 lines 34-38; col. 4 lines 30-35; col. 5 lines 29-30];

DC-to-DC-converting [Fig. 1, 24] means connected to said battery system; and a controller [Fig. 1, 23] connected to said voltage sensing means and to said DC-to-DC-converting means and being arranged to control the voltage distribution over the batteries of the battery system via said DC-to-DC-converting means [col. 3 lines 30-34; col. 5 lines 4-29].

With respect to claim 11, Tamai discloses a timer unit connected to said controller [col. 5 lines 37-43].

With respect to claim 12, Tamai discloses a computer readable medium comprising instructions for bringing a computer to perform a method according to claim 1 [the program of controller 23; col. 3 lines 65-67 and col. 6 lines 1-5].

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD V. MURALIDAR whose telephone number is (571)272-8933. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Akm E. Ullah can be reached on 571-272-2361. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2838

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Richard V. Muralidar/  
Examiner, GAU 2838  
4/22/2008

/Bao Q. Vu/  
Primary Examiner, Art Unit 2838  
April 23, 2008